Pipeline Group Factual Report

ATTACHMENT 42

PHMSA Selected Accident Forms for LF ERW

Carmichael, Mississippi
DCA 08 MP 001

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 30,2004

No. 20040269 -- 2650
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31174 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator SHELL PIPELINE CO., L.P.
   d. Operator street address 777 WALKER STREET
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident

/ 1320 / / 09 / / 22 / /2004 /
hr. *month* *day* *year*

3. Location of accident
(If offshore, do not complete a through d See Part C.1)

a. Latitude: 30.926 Longitude: 096.600
(If not available, see instructions for how to provide specific location)

b. HEARNE ROBERTSON
City and County or Parish

c. TX 77859
State and Zip Code

4.53

d. Mile post/valve station ● or Survey Station no. ○
(whichever gives more accurate location)

4.53

4. Telephone report

/ 736050 / / 09 / / 22 / / 2004 /
NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 900,000
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 3,000
Value of operator property damage	$ 0
Other Costs	$ 125,000
(describe) REPAIR	
Total Costs:	$ 1,028,000

6. Commodity Spilled ● Yes ○ No
(If Yes, complete Parts a through c where applicable)

a. Name of commodity spilled PRODUCT

b. Classification of commodity spilled:
- ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
- ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
- ● Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
- ○ Crude oil

c. Estimated amount of commodity involved :

- ● Barrels
- ○ Gallons (check only if spill is less than one barrel)

Amounts :
Spilled : 196

Recovered: 120

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

MAXINE KINNEY
(type or print) Preparer's Name and Title

(713) 241-2910
Area Code and Telephone Number

MGKINNEY@SHELLOPUS.COM
Preparer's E-mail Address

(713) 241-2199
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID **HEARNE PRODUCTS**
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ○ Yes ● No

Offshore: ○ Yes ● No *(comple d if offshore)*
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☒ High Consequence Area (HCA)?
Describe HCA **OP**

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms
*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
○ Body of Pipe ● Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
○ Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: / **1948** /

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident: **1,032** *PSIG*
b. MOP at time of accident: **1,132** *PSIG*
c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
● Rupture: ○ Circumferential - Separation
● Longitudinal - Tear/Crack, length *(inches)* **50**
Propagation Length, total, both sides *(feet)* **0**
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
c. Length of segment isolated **148,579** ft
d. Distance between valves **148,579** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: **2001**
☐ Low Resolution Magnetic Flux tool Year run: _____
☐ UT tool Year r_____
☒ Geometry tool Year run: **2001**
☐ Caliper tool Year run: _____
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / **10.75** / in.
2. Wall thickness **.28** / in.
3. Specification **GRADE B** SMYS / **35000** /
4. Seam type **LF ERW**
5. valve type _____
6. *Manufactured by* **YOUNGSTOWN** *in year* / **1948** /

PART E - ENVIRONMENT

1. *Area of accident*
○ In open ditch
○ Under pavement ○ Above ground
● Underground ○ Under water
○ Inside/under building ○ Other _____

2. *Depth of cover:* **24** *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? **3** days **19** hours **40** minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: **23,000**
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ● Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 0 hours 2

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ● External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ● Coated

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ● Other **SELECTIVE SEAM CORROSION**

c. Cause of Corrosion
- ○ Galvanic ○ Atmospheric
- ○ Stray Current ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ● Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ● Yes, Year Protection Started: / 1950 /

e. Was pipe previously damaged in the area of corrosion?
● No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement =>○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods =>○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group
      ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type:
      ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
      ○ Landowner-not farming related ○ Farming ○ Raildroad
      ○ Other liquid or gas transmission pipeline-operator or their contractor
      ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: /___/ mo. /_____/ day /___/ yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

A LABORATORY ANALYSIS WAS CONDUCTED ON THE FAILED PIPE SECTION. THE CAUSE OF THE FAILURE WAS DETERMINED TO BE SELECTIVE SEAM CORROSION WITH NO ADDITIONAL CONTRIBUTING FACTORS.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JAN 05,2006

No. 20060012 -- 4348
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 12127 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) / /
   c. Name of Operator MARATHON PIPE LINE LLC
   d. Operator street address 539 S MAIN STREET
   e. Operator address FINDLAY HANCOCK OH 45840
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 930 / / 11 / / 08 / /2005 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 41.0870N Longitude: -87.7228W
   (If not available, see instructions for how to provide specific location)
   b. KANKAKEE KANKAKEE
   City and County or Parish
   c. IL 60964
   State and Zip Code
   ROW 819
   d. Mile post/valve station ● or Survey Station no. ●
   (whichever gives more accurate location)
   ROW 819 /// STATION PLUS 3976+70

4. Telephone report
   / 778871 / / 11 / / 08 / / 2005 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 0
Cost of emergency response phase	$ 156,900
Cost of environmental remediation	$ 125,000
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 3,414
Value of operator property damage	$ 221,000
Other Costs	$ 0
(describe)	
Total Costs:	$ 506,314

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled GASOLINE
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ● Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 52
   Recovered: 15

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels) :* (For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

ANN-MARIE KAYSER, MPL ES&R
(type or print) Preparer's Name and Title

(419) 429-5629
Area Code and Telephone Number

AKAYSER@MARATHONPETROLEUM.COM
Preparer's E-mail Address

(419) 421-3917
Area Code and Facsimile Number

Authorized Signature (type or print) Name and Title Date Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID WABASH 12
b. Accident on Federal land other than Outer Continental Shelf ● Yes ○ No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☐ High Consequence Area (HCA)?
Describe HCA _____

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms
*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
○ Body of Pipe ● Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
○ Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: / 1958 /

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident: 898 *PSIG*
b. MOP at time of accident: 1,244 *PSIG*
c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
○ Rupture: ○ Circumferential - Separation
○ Longitudinal - Tear/Crack, length *(inches)* _____
Propagation Length, total, both sides *(feet)* _____
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
c. Length of segment isolated 88,704 ft
d. Distance between valves 88,704 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: 2002
☐ Low Resolution Magnetic Flux tool Year run: _____
☐ UT tool Year r_____
☒ Geometry tool Year run: 2002
☐ Caliper tool Year run: _____
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 12 / in.
2. Wall thickness .25 / in.
3. Specification API 5LX46 SMYS / 46000 /
4. Seam type LOW FREQUENCY ELEC. RESISTANTT W
5. valve type _____
6. *Manufactured by* REPUBLIC *in year* / 1958 /

PART E - ENVIRONMENT

1. *Area of accident*
○ In open ditch
○ Under pavement
○ Above ground
○ Underground
○ Under water
○ Inside/under building
● Other CREEK

2. *Depth of cover:* 48 *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 3 days 13 hours 3 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official
f. Elapsed time until area was made safe:
/ _____ / hr. / _____ / min.

2. **Environmental Impact**
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 167
c. Long term impact assessment performed: ● Yes ○ No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 1 barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ○ No ● Yes
Drinking water ● No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☒ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ● Other (specify) **LANDOWNER**
3. Estimated leak duration days **31** hours _____

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ○ Coated

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ○ Galvanic ○ Atmospheric
- ○ Stray Current ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ○ Yes, Year Protection Started: /_____/

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group
      ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
      ○ Landowner-not farming related ○ Farming ○ Raildroad
      ○ Other liquid or gas transmission pipeline-operator or their contractor
      ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: /___/ mo. /_____/ day /___/ yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one): ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ● Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ● Other LACK OF FUSION/COLD

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 2003 / yr. / 10 / mo. / 12 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1556 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON NOVEMBER 8M, 2005 AT APPROX. 9:30 A.M. CENTRAL STANDARD TIME, MPL¿S WABASH 16¿ PRODUCTS PIPELINE WAS SHUTDOWN AFTER WE RECEIVED A CALL FROM A LANDOWNER REPORTING THE SMELL OF PRODUCT AROUND THE CREEK BANK NEAR THE WABASH LINE IN ST. ANNE, ILLINOIS. MPL IMMEDIATELY INITIATED LOCAL EMERGENCY RESPONSE ACTIVITIES. MPL RESPONSE PERSONNEL ON-SITE CONFIRMED A SLIGHT SHEEN ON THE SURFACE OF SPRING CREEK MOVING DOWNSTREAM (WEST) FOR APPROXIMATELY 1 TO 1.5 MILES. ON NOV 9, 2005, PIPELINE EXCAVATION BEGAN AND ON NOV 10, 2005 THE SOURCE OD THE RELEASE WAS IDENTIFIED AS THE WABASH 16¿ PRODUCTS PIPELINE WITH THE CHAMPAIGN TO GRIFFITH SEGMENT. THE PRODUCT HAD MIGRATED TO UNDERGROUND FROM THE SOURCE OF THE RELEASE APPROX. 150 FT INTO SPRING CREEK FROM THE BASE OF THE CREEK BANK. THE SOURCE OF THE RELEASE WAS REPAIRED WITH A TUPE ¿B¿ SLEEVE ON NOV 10, 2005. ON NOV 18, 2005 KIEFNER & ASSOC ADVISED THAT THEIR PRELIMINARY ANALYSIS INDICATED THE RELEASE WAS CAUSED BY COLD WELD OR LACK OF FUSION WITH NO SIGNS OF FATIGUE. THE JOINT OF PIPE THAT WAS REMOVED IS CURRENTLY UNDERGOING TESTING BY KOEFNER & ASSOC AND ANOTHER OUTSIDE COMPANU. MPL IS CURRENTLY OPERATING THE PIPELINE AT REDUCED RATES, WHICH WILL CONTINUE UNTIL THE FAILURE MECHANISM IS KNOWN AND THE REMEDIATION PLAN HAS BEE APPROVED BY THE CENTRAL REGION OFFICE OF PIEPL;INE SAFETY. AS OF JAN 3, 2006, MPL HAS RECEIVED AND REVIEWD REPORTS FROM OUTSIDE BENDORS STATING THE AUSE OF THE RELEASE TO THIS SECTION OF PIPELINE WAS DUE TO LACK OF FUSION OR A "COLE WELD". RELEASE ESTIMATE OF 52 BBLS WAS CALCULATED BY EFI GLOBAL AND WAS BASED ON THE TOTAL PETRO HYDOCARB ANALYSIS AND ASSOCIATED MASS BALANCE CONVERSION CALCULATION. KIEFNER & ASSOC CALCULATED THE ESTIMATED LEAK DURATION BY GRAPHING THE PIPELINES PRESSURE CYCLES, THE AMOUNT OF PRODUCT RELEASED AND THE LENGTH OF THE CRACK.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 05 2006

No. 20060251 -- 5563
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31618 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) /_____/
   c. Name of Operator ENTERPRISE PRODUCTS OPERATING LP
   d. Operator street address 1100 LOUISIANA STREET
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1900 / / 08 / / 16 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 38D09'38 Longitude: 97D55'58
   (If not available, see instructions for how to provide specific location)
   b. HUTCHINSON RENO
   City and County or Parish
   c. KS 67501
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ●
   (whichever gives more accurate location)
   14427+74

4. Telephone report
   / 808075 / / 08 / / 16 / / 2006 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 5,000
Cost of environmental remediation	$ 61,000
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 100
Value of operator property damage	$ 0
Other Costs	$ 13,000
(describe) PERMANENT PIPE REPAIR	
Total Costs:	$ 79,100

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled ANHYDROUS AMMONIA
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
○ Barrels
● Gallons (check only if spill is less than one barrel)

Amounts :
Spilled : 100
Recovered: _____

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)*

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
● Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

JOHN S. STERRETT
(type or print) Preparer's Name and Title

(713) 381-2493
Area Code and Telephone Number

JSTERRETT@EPROD.COM
Preparer's E-mail Address

(713) 381-8790
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID **SOUTH LEG NH3 LINE**
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State _/____/ or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☒ High Consequence Area (HCA)?
Describe HCA **DRINKING WATER**

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms

*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
○ Body of Pipe ● Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
○ Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: /**1968**/

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident: **900** *PSIG*
b. MOP at time of accident: **1,151** *PSIG*
c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
○ Rupture: ○ Circumferential - Separation
○ Longitudinal - Tear/Crack, length *(inches)* _____
Propagation Length, total, both sides *(feet)* _____
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated **48,294** ft
d. Distance between valves **48,294** ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: **2004**
☐ Low Resolution Magnetic Flux tool Year run: _____
☐ UT tool Year r_____
☐ Geometry tool Year run: _____
☒ Caliper tool Year run: **2004**
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* /**8.63**/ in.
2. Wall thickness **.16** / in.
3. Specification **API 5L** SMYS /**46000**/
4. Seam type **LF-ERW**
5. valve type _____
6. *Manufactured by* **LONE STAR STEEL** *in year* /**1967**/

PART E - ENVIRONMENT

1. *Area of accident*
○ In open ditch
○ Under pavement ○ Above ground
● Underground ○ Under water
○ Inside/under building ○ Other _____

2. *Depth of cover:* **40** *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ○ No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* /_____/ people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/**0**/ hr. /**0**/ min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: **500**
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ○ Yes ○ No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ● A third party
   - ○ Other (specify) _____
3. Estimated leak duration days_____ hours _____

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ○ Coated

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ○ Galvanic
- ○ Atmospheric
- ○ Stray Current
- ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ○ Yes, Year Protection Started: /_____/

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*

a. Excavator group
- ○ General Public ○ Government ○ Excavator other than Operator/subcontractor

b. Type:
- ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
- ○ Landowner-not farming related ○ Farming ○ Raildroad
- ○ Other liquid or gas transmission pipeline-operator or their contractor
- ○ Nautical Operations ○ Other _____

c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact /___/

e. Did operator get prior notification of excavation activity?
○ Yes; Date received: /___/ mo. /_____/ day /___/ yr. ○ No

Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner

f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: ○ Flags ○ Stakes ○ Paint
- ii. Permanent markings: ○ Yes ○ No
- iii. Marks were (check one): ○ Accurate ○ Not Accurate
- iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ● Pipe Seam => ● LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1968 / yr. / 4 / mo. / 1 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1465 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

A THIRD PARTY DISCOVERED THIS LEAK ON AUGUST 16, 2006.

AFTER DISCOVERY, THE PIPELINE WAS SHUTDOWN ON AUGUST 16, 2006 FOR REPAIR. A PLIDCO SPLIT SLEEVE RATED FOR 1500 PSIG WAS INSTALLED ON AUGUST 17 AS A TEMPORARY REPAIR, AND THE LINE WAS PLACED BACK IN SERVICE ON AUGUST 17, 2006.

AFTER VISUAL EXAMINATION AND FROM PAST STUDIES ON THIS LINE, THE PINHOLE LEAK IN THIS PARTICULAR LONGITUDINAL SEAM WAS CONCLUDED TO BE MOST LIKELY CAUSED BY A PIPE MANUFACTURING DEFECT.

THE PLIDCO SLEEVE WAS WELDED IN AS THE PERMANENT REPAIR.

THE FILING ON MAY 2, 2007 WAS MADE AS A SUPPLEMENTAL FILING BECAUSE ONGOING ENVIRONMENTAL REMEDIATION WAS NOT ADEQUATELY DELINEATED AT THAT TIME.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date APR 17 2007

No. 20070105 -- 5480
(DOT Use Only)

INSTRUCTIONS

Important: Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov

PART A - GENERAL REPORT INFORMATION

check: [x] Original Report [ ] Supplemental Report [ ] Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31618 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) /_____/
   c. Name of Operator ENTERPRISE PRODUCTS OPERATING LP
   d. Operator street address 1100 LOUISIANA STREET
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1150 / / 03 / / 19 / /2007 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 37.2176685 Longitude: -99.748673
   (If not available, see instructions for how to provide specific location)
   b. ASHLAND CLARK
   City and County or Parish
   c. KS 67831
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ●
   (whichever gives more accurate location)
   8031+92

4. Telephone report
   / 829638 / / 03 / / 19 / / 2007 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 50,000
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 10
Value of operator property damage	$ 0
Other Costs	$ 4,000
(describe) PIPE REPAIR COSTS	
Total Costs:	$ 54,010

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled ANHYDROUS AMMONIA
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
   ○ Barrels
   ● Gallons (check only if spill is less than one barrel)

Amounts :
Spilled : 10
Recovered: _____

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)*

(For large spills [5 barrels or greater] see Part H)

● Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

JOHN S. STERRETT
(type or print) Preparer's Name and Title

(713) 381-2493
Area Code and Telephone Number

JSTERRETT@EPROD.COM
Preparer's E-mail Address

(713) 381-8790
Area Code and Facsimile Number

Authorized Signature (type or print) Name and Title Date Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID **SOUTH LEG NH3 LINE**
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☐ High Consequence Area (HCA)?
Describe HCA _____

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms
*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
○ Body of Pipe ○ Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
● Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: / 1968 /

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident: 320 *PSIG*
b. MOP at time of accident: 1,420 *PSIG*
c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
○ Rupture: ○ Circumferential - Separation
○ Longitudinal - Tear/Crack, length *(inches)* _____
Propagation Length, total, both sides *(feet)* _____
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☐ Manual ☐ Automatic ☒ Remote Control ☐ Check Valve
c. Length of segment isolated 31,475 ft
d. Distance between valves 31,475 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☐ High Resolution Magnetic Flux tool Year run: _____
☒ Low Resolution Magnetic Flux tool Year run: 2007
☐ UT tool Year r_____
☒ Geometry tool Year run: 2006
☐ Caliper tool Year run: _____
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 6.63 / in.
2. Wall thickness .16 / in.
3. Specification API-5L SMYS / 46000 /
4. Seam type LF ERW
5. valve type _____
6. *Manufactured by* LONE STAR STEEL *in year* / 1968 /

PART E - ENVIRONMENT

1. *Area of accident*
○ Under pavement ○ In open ditch
● Underground ○ Above ground
○ Inside/under building ○ Under water
○ Other _____

2. *Depth of cover:* 42 *inches*

PART F - CONSEQUENCES

1. Consequences *(check and complete all that apply)*

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 0 / hr. / 20 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 500
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☒ Soil ☐ Vegetation ☐ Wildlife

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ● A third party
   - ○ Other (specify) _____
3. Estimated leak duration days 1 hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ● External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ● Coated

b. Visual Examination
- ● Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ● Galvanic
- ○ Atmospheric
- ○ Stray Current
- ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ● Yes, Year Protection Started: / 1968 /

e. Was pipe previously damaged in the area of corrosion?
● No ○ Yes => Estimated time prior to accident: / / years / / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*

a. Excavator group
- ○ General Public ○ Government ○ Excavator other than Operator/subcontractor

b. Type:
- ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
- ○ Landowner-not farming related ○ Farming ○ Railroad
- ○ Other liquid or gas transmission pipeline-operator or their contractor
- ○ Nautical Operations ○ Other _____

c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact / /

e. Did operator get prior notification of excavation activity?
○ Yes; Date received: / / mo. / / day / / yr. ○ No

Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner

f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: ○ Flags ○ Stakes ○ Paint
- ii. Permanent markings: ○ Yes ○ No
- iii. Marks were (check one): ○ Accurate ○ Not Accurate
- iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt => ○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ○ No

c. Was part which leaked pressure tested before accident occurred? ○ Yes, complete d-g ○ No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: ○ Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

A CONTRACTOR WHILE EXCAVATING AN ILI ANOMALY, SMELLED AMMONIA AND CALLED OPERATIONS. OPERATIONS PERSONNEL REDUCED THE LINE PRESSURE, EXCAVATED THE PIPE, REMOVED THE COATING, CLEANED THE EXTERNAL SURFACE AND PLACED A TYPE B CLAMP OVER THE LEAK. THE PINHOLE STOPPED LEAKING WHEN THE PRESSURE WAS REDUCED. AFTER THE CLAMP WAS INSTALLED, THE PRESSURE WAS RAISED BACK TO NORMAL OPERATING PRESSURE WITH NO EVIDENCE OF LEAKAGE. THE REPAIR WAS COMPLETED, AND THE SEGMENT RETURNED TO NORMAL OPERATION ON MARCH 20, 2007.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 20,2005

No. 20050177 – 4181
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☒ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31618 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) /_____/
   c. Name of Operator ENTERPRISE PRODUCTS OPERATING L.P.
   d. Operator street address 2727 NORTH LOOP WEST, PO BOX 4324
   e. Operator address HOUSTON HARRIS TX 77210-4324
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1400 / hr. / 06 / month / 01 / day / 2005 / year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 42D12'35" Longitude: 90D49'22"
   (If not available, see instructions for how to provide specific location)
   b. BERNARD JACKSON
   City and County or Parish
   c. IA 52032
   State and Zip Code
   526.49
   d. Mile post/valve station ● or Survey Station no. ●
   (whichever gives more accurate location)
   526.49 /// 27798+75

4. Telephone report
   / 760659 / NRC Report Number / 06 / month / 01 / day / 2005 / year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 500
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 5,100
Value of operator property damage	$ 2,500
Other Costs	$ 48,100
(describe) REPAIR COSTS	
Total Costs:	$ 56,200

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled **PROPANE**
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. **Estimated amount of commodity involved :**
   ● **Barrels**
   ○ **Gallons (check only if spill is less than one barrel)**

Amounts :
Spilled : 81
Recovered: _____

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* : **(For large spills [5 barrels or greater] see Part H)**

○ **Corrosion** ○ **Natural Forces** ○ **Excavation Damage** ○ **Other Ouside Force Damage**
○ **Materal and/or Weld Failures** ○ **Equipment** ○ **Incorrect Operation** ○ **Other**

PART B - PREPARER AND AUTHORIZED SIGNATURE

JOHN S. STERRETT
(type or print) Preparer's Name and Title

(713) 803-2493
Area Code and Telephone Number

JSTERRETT@EPROD.COM
Preparer's E-mail Address

(713) 803-8790
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID 6 INCH BLUE EAST MAINLINE
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State /____/ or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☐ High Consequence Area (HCA)?
Describe HCA _____

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms
*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on

○ Body of Pipe	○ Pipe Seam	○ Scraper Trap
○ Pump	○ Sump	○ Joint
○ Component	○ Valve	○ Metering Facility
○ Repair Sleeve	○ Welded Fitting	○ Bolted Fitting
● Girth Weld		

○ Other *(specify)* _____

Year the component that failed was installed: /1960/

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident:
600 *PSIG*
b. MOP at time of accident:
1,335 *PSIG*
c. Did an overpressurization occur relating to the accident?
○ Yes ● No

a. Type of leak or rupture
● Leak: ● Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
○ Rupture: ○ Circumferential - Separation
○ Longitudinal - Tear/Crack, length *(inches)* _____
Propagation Length, total, both sides *(feet)* _____
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
c. Length of segment isolated 60,720 ft
d. Distance between valves 60,720 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: 2004
☐ Low Resolution Magnetic Flux tool Year run: _____
☐ UT tool Year r_____
☐ Geometry tool Year run: _____
☒ Caliper tool Year run: 2004
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* /6.63/ in.
2. Wall thickness .19 / in.
3. Specification API 5L - X46 SMYS /46000/
4. Seam type LF-ERW
5. valve type NA
6. *Manufactured by* LONE STAR STEEL *in year* /1960/

PART E - ENVIRONMENT

1. *Area of accident*
○ Under pavement ○ In open ditch
● Underground ○ Above ground
○ Inside/under building ○ Under water
○ Other _____

2. *Depth of cover:* 30 *inches*

PART F - CONSEQUENCES

1. Consequences ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 0 days 12 hours 0 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* /_____/ people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/12/ hr. /0/ min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ○ Yes ● No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ○ Yes ● No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ● A third party
   - ○ Other (specify) _____
3. Estimated leak duration days 0 hours 3

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ○ Coated

b. Visual Examination
- ○ Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ○ Galvanic
- ○ Atmospheric
- ○ Stray Current
- ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ○ Yes, Year Protection Started: /_____/

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*

a. Excavator group
- ○ General Public ○ Government ○ Excavator other than Operator/subcontractor

b. Type:
- ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
- ○ Landowner-not farming related ○ Farming ○ Raildroad
- ○ Other liquid or gas transmission pipeline-operator or their contractor
- ○ Nautical Operations ○ Other _____

c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact /___/

e. Did operator get prior notification of excavation activity?
○ Yes; Date received: /___/ mo. /_____/ day /___/ yr. ○ No

Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner

f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: ○ Flags ○ Stakes ○ Paint
- ii. Permanent markings: ○ Yes ○ No
- iii. Marks were (check one) : ○ Accurate ○ Not Accurate
- iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe => ○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component => ○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint => ○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ● Butt => ● Pipe ○ Fabrication ○ Other _____

18. ○ Fillet => ○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ○ Pipe Seam => ○ LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
● Construction Defect => ● Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1960 / yr. / 11 / mo. / 8 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1669 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure => ○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

THIS LEAK WAS DISCOVERED IN A GIRTH WELD. REPAIR MADE USING A FULL ENCIRCLEMENT BOLT-ON SLEEVE. THE VOLUME REPORTED INCLUDES THE BLOW DOWN VOLUME FOR REMOVING A SEGMENT OF PIPE PURSUANT TO AN INTEGRITY MANAGEMENT ASSESSMENT THAT WAS SCHEDULED SOON AFTER THE REPAIR OF THE LEAK. DETAILS: ON MAY 22, 2005, A LAND OWNER (TOM MARTIN) CALLED IN A DEAD SPOT IN HIS FIELD AT 19:00. THE AREA FIELD TECH DARIN SHULISTA CALLED DAVE ANDERSON, AREA COM, AT 19:30 TO DISCUSS THE LEAK ISSUE WITH THE AREA SUPERVISOR, TIM SCHUTT. DAVE WENT TO LEAK SITE WITH TIM AND DARIN AND HAND DUG TO WITHIN 12" OF LINE AND TESTED WITH A LEL METER AND PICKED UP LESS THAN 10% LEL. OPERATIONS CONTROL WAS NOTIFIED AND THEY BLOCKED IN THE LINE SECTION. ON MAY 23, 2005, A CONTRACTOR EXCAVATED THE SITE AND DISCOVERED A LEAKING GIRTH WELD AT STATION # 27798+75. THE REPAIR WAS COMPLETED USING A 6" BOLT-ON PLIDCO SLEEVE. OPERATIONS CONTROL THEN PLACED THE LINE BACK IN NORMAL OPERATIONS. MAY 26, 2005, 100' OF LINE SECTION WAS EXCAVATED TO CUTOUT THE REPAIRED SECTION. A STOPPLE SITE WAS EXCAVATED AT STATION # 27800+82. MAY 31, 2005, THE CONTRACTOR RECEIVED THE PIPE MATERIALS, WELDED UP AND HYDROTESTED THE REPLACEMENT SECTION, AND INSTALLED A 6" 900 ANSI STOPPLE FITTING WITH 2" TOR FITTING. JUNE 1, 2005, THE CONTRACTOR TAPPED AND SET STOPPLE. OPERATIONS EVACUATED 2348' OF 6" LINE WITH A VOLUME OF 81 BARRELS. JUNE 2, 2005, OPERATIONS COMPLETED EVACUATION OF LINE WITH NITROGEN, REMOVED REPAIRED SECTION OF PIPE, INSTALLED NEW REPLACEMENT SECTION. SYSTEM WAS PURGED AND STOPPLE REMOVED COMPLETING ALL PIPING WORK. JUNE 3, 2005, CONTRACTOR COATED ALL PIPE AND FITTINGS, BACK FILLED AND CLEANED SITE. JUNE 13, 2005, THE CUTOUT PIPE WAS SUBMITTED TO KIEFNER & ASSOCIATES, INC. FOR FAILURE ANALYSIS.

THE FINAL KIEFNER & ASSOCIATES REPORT CONCLUDED THAT THE LEAK WAS THE RESULT OF AN ORIGINAL CONSTRUCTION GIRTH WELD DEFECT KNOWN AS "BURNTHROUGH".

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportaion
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JAN 28,2008

No. 20080019 -- 6726
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: [x] Original Report [ ] Supplemental Report [ ] Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31618 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) /_____/
   c. Name of Operator ENTERPRISE PRODUCTS OPERATING LLC
   d. Operator street address 1100 LOUISIANA STREET
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 2115 / / 12 / / 30 / /2007 /
   hr. *month* *day* *year*

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 42D26'19.1" Longitude: -90D35'53.1"
   (If not available, see instructions for how to provide specific location)
   b. DUBUQUE DUBUQUE
   City and County or Parish
   c. IA 52003
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ●
   (whichever gives more accurate location)
   28854+39

4. Telephone report
   / 858466 / / 12 / / 30 / / 2007 /
   NRC Report Number *month* *day* *year*

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 1,400
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 127,000
Value of operator property damage	$ 0
Other Costs	$ 78,200
(describe) REPAIR COSTS	
Total Costs:	$ 206,600

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled PROPANE
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. **Estimated amount of commodity involved :**
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)

   Amounts :
   Spilled : 100
   Recovered: _____

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

JOHN S. STERRETT
(type or print) Preparer's Name and Title

(713) 381-2493
Area Code and Telephone Number

JSTERRETT@EPROD.COM
Preparer's E-mail Address

(713) 381-8790
Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID EAST LEG BLUE LINE
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☒ High Consequence Area (HCA)?
Describe HCA ECOLOGICAL

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms
*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
● Body of Pipe ○ Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
○ Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: / _____ /

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident:
150 *PSIG*
b. MOP at time of accident:
1,335 *PSIG*
c. Did an overpressurization occur relating to the accident?
○ Yes ● No

a. Type of leak or rupture
○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
○ Rupture: ○ Circumferential - Separation
○ Longitudinal - Tear/Crack, length *(inches)* _____
Propagation Length, total, both sides *(feet)* _____
○ N/A
● Other CIRCUMFERENTIAL CRACK

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
c. Length of segment isolated 48,223 ft
d. Distance between valves 48,223 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: 2004
☐ Low Resolution Magnetic Flux tool Year run: _____
☐ UT tool Year r_____
☒ Geometry tool Year run: 2004
☐ Caliper tool Year run: _____
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 6.63 / in.
2. Wall thickness .19 / in.
3. Specification API-5L SMYS / 46000 /
4. Seam type LF ERW
5. valve type _____
6. *Manufactured by* LONE STAR STEEL *in year* / 1960 /

PART E - ENVIRONMENT

1. *Area of accident*
○ In open ditch
○ Under pavement ○ Above ground
● Underground ○ Under water
○ Inside/under building ○ Other _____

2. *Depth of cover:* 84 *inches*

PART F - CONSEQUENCES

1. **Consequences** ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

b. Was pipeline/segment shutdown due to leak? ○ Yes ● No
If Yes, how long? _____ days _____ hours _____ minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☐ **Evacuation** *(general public only)* / _____ / people
Reason for Evacuation:
○ Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 60 / hr. / 45 / min.

2. **Environmental Impact**
a. Wildlife Impact: Fish/aquatic ○ Yes ● No; Bird ○ Yes ● No; Terrestrial ○ Yes ● No
b. Soil Contamination ○ Yes ● No
If Yes, estimated number of cubic yards: _____
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ○ Yes ● No
If Yes, Check all that apply: ☐ Surface water ☐ Groundwater ☐ Soil ☐ Vegetation ☐ Wildlife

e. Water Contamination: ○ Yes ● No *(If Yes, provide the following)*
Amount in water _____ barrels
Ocean/Seawater ○ No ○ Yes
Surface ○ No ○ Yes
Groundwater ○ No ○ Yes
Drinking water ○ No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ● Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days 2 hours 18

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ○ Coated

b. Visual Examination: ○ Localized Pitting ○ General Corrosion ○ Other _____

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ○ Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? ○ No ○ Yes, Year Protection Started: / _____ /

e. Was pipe previously damaged in the area of corrosion? ○ No ○ Yes => Estimated time prior to accident: / ___ / years / ___ / months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact / ___ /
   e. Did operator get prior notification of excavation activity?
      ○ Yes; Date received: / ___ / mo. / _____ / day / ___ / yr. ○ No
      Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
      i. Temporary markings: ○ Flags ○ Stakes ○ Paint
      ii. Permanent markings: ○ Yes ○ No
      iii. Marks were (check one) : ○ Accurate ○ Not Accurate
      iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe => O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component => O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint => O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt => O Pipe O Fabrication O Other _____

18. O Fillet => O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam => O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure => O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. ● Miscellaneous, *describe:* **CIRCUMFERENTIAL CRACKING CAUSED BY A BENDING LOAD ON THE EXTRADOS OF A SAG BEND.**

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON 12/30/07, COMPANY OPERATIONS CONTROL PERSONNEL (OC) OBSERVED GRADUALLY DECLINING PRESSURES ON A SEGMENT OF PIPE THAT WAS SHUT IN. OC CALLED FIELD OPERATIONS PERSONNEL TO CHECK FOR A POTENTIAL LEAK. THE LEAK WAS IDENTIFIED IN A REMOTE AREA AT ABOUT 21:15 ON 12/30/07 BY WALKING THE ROW WITH AN LEL MONITOR. THERE WAS NO VISIBLE VAPOR CLOUD AT THE TIME OF DISCOVERY. PRODUCT WAS FLARED AND VENTED UNTIL THE LEAK AREA WAS MADE SAFE. THE FAILURE WAS CUT OUT AND SENT TO STORK METTALLURGICAL CONSULTANTS, INC WHO DETERMINED THE ABOVE CAUSE. ABOUT 100 BBLS OF PRODUCT WAS ESTIMATED RELEASED AT THE LEAK SITE, AND A TOTAL OF ABOUT 1900 BBLS WAS ESTIMATED LOST, INCLUDING CONTROLLED FLARING AND VENTING AT THE BLOCK VALVES. THE VALUE OF PRODUCT LOST WAS FOR THE 1900 BBL VOLUME.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportation
Research and Special Programs Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAY 17,2006

No. 20060137 – 4510
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 15674 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) /_____/
   c. Name of Operator PLANTATION PIPE LINE COMPANY
   d. Operator street address 1435 WINDWARD CONCOURSE
   e. Operator address ALPHARETTA FULTON GA 30005
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 1640 / / 04 / / 17 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: N 37.63879 Longitude: W 77.60405
   (If not available, see instructions for how to provide specific location)
   b. RICHMOND HENRICO
   City and County or Parish
   c. VA 23233
   State and Zip Code
   14
   d. Mile post/valve station ● or Survey Station no. ○
   (whichever gives more accurate location)
   14

4. Telephone report
   / 794243 / / 04 / / 17 / / 2006 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:

Public/private property damage	$ 0
Cost of emergency response phase	$ 0
Cost of environmental remediation	$ 0
Other Costs	$ 0
(describe)	

Operator Losses:

Value of product lost	$ 0
Value of operator property damage	$ 0
Other Costs	$ 5,500,000
(describe) CLEAN UP AND REMEDIATION	
Total Costs:	$ 5,500,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled TURBINE FUEL
   b. Classification of commodity spilled:
   ○ HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ● Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 553
   Recovered: 550

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* :

(For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

QUINTIN H. FRAZIER
(type or print) Preparer's Name and Title

(770) 751-4240
Area Code and Telephone Number

QUINTIN FRAZIER@KINDERMORGAN.COM
Preparer's E-mail Address

(770) 751-4130
Area Code and Facsimile Number

Authorized Signature (type or print) Name and Title Date Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID 14W
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☒ High Consequence Area (HCA)?
Describe HCA **HPA**

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms

*If failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
○ Body of Pipe ● Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
○ Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: / 1964 /

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident: 990 *PSIG*
b. MOP at time of accident: 1,080 *PSIG*
c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
● Rupture: ○ Circumferential - Separation
● Longitudinal - Tear/Crack, length *(inches)* 7
Propagation Length, total, both sides *(feet)* 3
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve

c. Length of segment isolated 94,982 ft
d. Distance between valves 94,982 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: 2005
☒ Low Resolution Magnetic Flux tool Year run: 1993
☐ UT tool Year r
☐ Geometry tool Year run:
☒ Caliper tool Year run: 2005
☒ Crack tool Year n 2005
☐ Hard Spot tool Year ru
☐ Other tool Year n

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 12.75 / in.
2. Wall thickness .2 / in.
3. Specification 5L SMYS / 52000 /
4. Seam type LF ERW
5. valve type _____
6. *Manufactured by* BETHLEHEM *in year* / 1964 /

PART E - ENVIRONMENT

1. *Area of accident*
○ In open ditch
○ Under pavement ○ Above ground
● Underground ○ Under water
○ Inside/under building ○ Other _____

2. *Depth of cover:* 48 *inches*

PART F - CONSEQUENCES

1. Consequences ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	0
Totals:	0	0

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☒ **Evacuation** *(general public only)* / 4 / people
Reason for Evacuation:
○ Precautionary by company
● Evacuation required or initiated by public official

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 2 days 7 hours 3 minutes

f. Elapsed time until area was made safe:
/ 4 / hr. / / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ● Yes ○ No
Bird ○ Yes ● No
Terrestrial ○ Yes ● No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 50,000
c. Long term impact assessment performed: ● Yes ○ No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 4 barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ○ No ● Yes
Drinking water ● No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

If Yes, Check all that apply: ☐ Surface water ☒ Groundwater ☒ Soil ☒ Vegetation ☐ Wildlife

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ● Yes ○ No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ● Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ○ A third party ○ Other (specify) _____
3. Estimated leak duration days_____ hours 0

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ○ External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating: ○ Bare ○ Coated

b. Visual Examination: ○ Localized Pitting ○ General Corrosion ○ Other _____

c. Cause of Corrosion: ○ Galvanic ○ Atmospheric ○ Stray Current ○ Microbiological ○ Cathodic Protection Disrupted ○ Stress Corrosion Cracking ○ Selective Seam Corrosion ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ○ Yes, Year Protection Started: /_____/

e. Was pipe previously damaged in the area of corrosion?
○ No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*
   a. Excavator group: ○ General Public ○ Government ○ Excavator other than Operator/subcontractor
   b. Type: ○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable ○ Landowner-not farming related ○ Farming ○ Raildroad ○ Other liquid or gas transmission pipeline-operator or their contractor ○ Nautical Operations ○ Other _____
   c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)
   d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact /___/
   e. Did operator get prior notification of excavation activity?
   ○ Yes; Date received: /___/ mo. /_____/ day /____/ yr. ○ No
   Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner
   f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
   i. Temporary markings: ○ Flags ○ Stakes ○ Paint
   ii. Permanent markings: ○ Yes ○ No
   iii. Marks were (check one): ○ Accurate ○ Not Accurate
   iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. ○ Body of Pipe =>○ Dent ○ Gouge ○ Bend ○ Arc Burn ○ Other _____

15. ○ Component =>○ Valve ○ Fitting ○ Vessel ○ Extruded Outlet ○ Other _____

16. ○ Joint =>○ Gasket ○ O-Ring ○ Threads ○ Other _____

Weld

17. ○ Butt =>○ Pipe ○ Fabrication ○ Other _____

18. ○ Fillet =>○ Branch ○ Hot Tap ○ Fitting ○ Repair Sleeve ○ Other _____

19. ● Pipe Seam =>● LF ERW ○ DSAW ○ Seamless ○ Flash Weld
○ HF ERW ○ SAW ○ Spiral ○ Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
○ Construction Defect => ○ Poor Workmanship ○ Procedure not followed ○ Poor Construction Procedures
○ Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? ○ Yes ● No

c. Was part which leaked pressure tested before accident occurred? ● Yes, complete d-g ○ No

d. Date of test: / 1997 / yr. / 7 / mo. / 29 / day

e. Test medium: ● Water ○ Inert Gas ○ Other _____

f. Time held at test pressure: / 8 / hr.

g. Estimated test pressure at point of accident: 1383 *PSIG*

H6 - EQUIPMENT

20. ○ Malfunction of Control/Relief Equipment => ○ Control valve ○ Instrumentation ○ SCADA ○ Communications
○ Block valve ○ Relief valve ○ Power failure
○ Other _____

21. ○ Threads Stripped Broken Pipe Coupling => ○ Nipples ○ Valve Threads ○ Dresser Couplings
○ Other _____

22. ○ Seal Failure =>○ Gasket ○ O-Ring ○ Seal/Pump Packing
○ Other _____

H7 - INCORRECT OPERATION

23. ○ Incorrect Operation

a. Type ○ Inadequate Procedures ○ Inadequate Safety Practices ○ Failure to Follow Procedures
○ Other _____

b. Number of employees involved who failed a post-accident test: drug test: / _____ / alcohol test / _____ /

H8 - OTHER

24. ○ Miscellaneous, *describe:* _____

25. ○ Unknown
○ Investigation Complete ○ Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

AT APPROXIMATELY 4:40PM EDT ON APRIL 17, 2006, A RUPTURE OCCURRED ON PLANTATION'S 12-INCH 14W PIPELINE. PLANTATION'S CONTRACT PERSONNEL WORKING NEAR THE AREA WITNESSED AND REPORTED THE RELEASE TO THE CONTROL CENTER IN ALPHARETTA, GEORGIA. APPROXIMATELY 553 BARRELS OF TURBINE FUEL WERE RELEASED. ALL PRODUCT RECOVERED EXCEPT MINOR RESIDUAL. THE RUPTURED JOINT OF PIPE WAS REPLACED.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed $25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed $5000,000 as provided in 49 USC 60122

Form Approved
OMB No. 2137-0047

U.S. Department of Transportation
Research and Special Programs
Administration

ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date NOV 21,2006

No. 20060326 -- 5384
(DOT Use Only)

INSTRUCTIONS

Important: ***Please read the separate instructions for completing this form before you begin. They clarify the information requested and provide specific examples. If you do not have a copy of the instructions you can obtain one from the Office Of Pipeline Safety Web Page at http://ops.dot.gov***

PART A - GENERAL REPORT INFORMATION

check: ☐ Original Report ☒ Supplemental Report ☐ Final Report

1. a. Operator's OPS 5-digit Identification Number (if know) / 31618 /
2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know) /_____/
   c. Name of Operator ENTERPRISE PRODUCTS OPERATING LP
   d. Operator street address 1100 LOUISIANA STREET
   e. Operator address HOUSTON HARRIS TX 77002
   City, County, State and ZIP Code

IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS AT LEAST 5 GALLONS BUT IS LESS THAN 5 BARRELS, COMPLETE THIS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IN 49 CFR §195.52(A)(4) OR IS OTHERWISE REPORTABLE UNDER §195.50 AS REVISED IN CY 2001.

2. Time and date of the accident
   / 944 / / 10 / / 25 / /2006 /
   hr. month day year

3. Location of accident
   (If offshore, do not complete a through d See Part C.1)
   a. Latitude: 39D17'23 Longitude: 97D14'25
   (If not available, see instructions for how to provide specific location)
   b. CLAY CLAY
   City and County or Parish
   c. KS 67432
   State and Zip Code
   d. Mile post/valve station ○ or Survey Station no. ●
   (whichever gives more accurate location)
   3801+79

4. Telephone report
   / 815979 / / 10 / / 25 / / 2006 /
   NRC Report Number month day year

5. Losses (Estimated)

Public/Community Losses reimbursed by operator:	
Public/private property damage	$ 50,000
Cost of emergency response phase	$ 50,000
Cost of environmental remediation	$ 350,000
Other Costs	$ 0
(describe)	
Operator Losses:	
Value of product lost	$ 190,000
Value of operator property damage	$ 100,000
Other Costs	$ 0
(describe)	
Total Costs:	$ 740,000

6. Commodity Spilled ● Yes ○ No
   (If Yes, complete Parts a through c where applicable)
   a. Name of commodity spilled ANHYDROUS AMMONIA
   b. Classification of commodity spilled:
   ● HVLs/other flammable or toxic fluid which is a gas at ambient conditions
   ○ CO_2 or other non-flammable, non-toxic fluid which is a gas at ambient conditons
   ○ Gasoline, diesel, fuel oil or other petroleum product which is a liquid at ambient conditions
   ○ Crude oil

c. Estimated amount of commodity involved :
   ● Barrels
   ○ Gallons (check only if spill is less than one barrel)
   Amounts :
   Spilled : 4,513
   Recovered: _____

CAUSES FOR SMALL SPILLS ONLY *(5 gallons to under 5 barrels)* : (For large spills [5 barrels or greater] see Part H)

○ Corrosion ○ Natural Forces ○ Excavation Damage ○ Other Ouside Force Damage
○ Materal and/or Weld Failures ○ Equipment ○ Incorrect Operation ○ Other

PART B - PREPARER AND AUTHORIZED SIGNATURE

JOHN S. STERRETT
(type or print) Preparer's Name and Title

(713) 381-2493
Area Code and Telephone Number

JSTERRETT@EPROD.COM
Preparer's E-mail Address

Area Code and Facsimile Number

Authorized Signature | (type or print) Name and Title | Date | Area Cod and Telephone Number

1. Additional location information
a. Line segment name or ID WEST LEG NH3 LINE
b. Accident on Federal land other than Outer Continental Shelf ○ Yes ● No
c. Is pipeline interstate? ● Yes ○ No

Offshore: ○ Yes ● No (*comple d if offshore*)
d. Area _____ Block # _____
State / / or Outer Continental Shelf ☐

2. Location of system involved (check all that apply)
☐ Operator's Property
☒ Pipeline Right of Way
☐ High Consequence Area (HCA)?
Describe HCA _____

3. Part of system involved in accident
○ Above Ground Storage Tank
○ Cavern or other below ground storage facility
○ Pump/meter station; terminal/tank farm piping and equipment, including sumps
○ Other Specify: _____

● Onshore **pipeline**, including valve sites
○ Offshore **pipeline**, including platforms
*if failure occurred on **pipeline**, complete items a - g:*

4. Failure occurred on
● Body of Pipe ○ Pipe Seam ○ Scraper Trap
○ Pump ○ Sump ○ Joint
○ Component ○ Valve ○ Metering Facility
○ Repair Sleeve ○ Welded Fitting ○ Bolted Fitting
○ Girth Weld
○ Other *(specify)* _____

Year the component that failed was installed: / 1968 /

5. Maximum operating pressure (MOP)
a. Estimated pressure at point and time of accident: 1,098 *PSIG*
b. MOP at time of accident: 1,185 *PSIG*
c. Did an overpressurization occur relating to the accident? ○ Yes ● No

a. Type of leak or rupture
○ Leak: ○ Pinhole ○ Connection Failure *(complete sec. H5)*
○ Puncture, diameter *(inches)* _____
● Rupture: ○ Circumferential - Separation
● Longitudinal - Tear/Crack, length *(inches)* 42
Propagation Length, total, both sides *(feet)* 4
○ N/A
○ Other _____

b. Type of block valve used for isolation of immediate section:
Upstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
Downstream: ☒ Manual ☐ Automatic ☐ Remote Control ☐ Check Valve
c. Length of segment isolated 57,517 ft
d. Distance between valves 57,517 ft
e. Is segment configured for internal inspection tools? ● Yes ○ No
f. Had there been an in-line inspection device run at the point of failure? ● Yes ○ No ○ Don't Know
○ Not Possible due to physical constraints in the system
g. If Yes, type of device run *(check all that apply)*
☒ High Resolution Magnetic Flux tool Year run: 2007
☐ Low Resolution Magnetic Flux tool Year run: _____
☐ UT tool Year r_____
☒ Geometry tool Year run: 2007
☐ Caliper tool Year run: _____
☐ Crack tool Year r_____
☐ Hard Spot tool Year ru_____
☐ Other tool Year r_____

PART D - MATERIAL SPECIFICATION

1. Nominal pipe size *(NPS)* / 8.63 / in.
2. Wall thickness .16 / in.
3. Specification API 5L SMYS / 46000 /
4. Seam type LF-ERW
5. valve type _____
6. *Manufactured by* LONE STAR STEEL *in year* / 1968 /

PART E - ENVIRONMENT

1. *Area of accident*
○ In open ditch
○ Under pavement ○ Above ground
● Underground ○ Under water
○ Inside/under building ○ Other _____

2. *Depth of cover:* 52 *inches*

PART F - CONSEQUENCES

1. Consequences ***(check and complete all that apply)***

a.	Fatalities	Injuries
Number of operator employees:	0	0
Contractor employees working for operator:	0	0
General public:	0	2
Totals:	0	2

b. Was pipeline/segment shutdown due to leak? ● Yes ○ No
If Yes, how long? 3 days 13 hours 1 minutes

c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
e. ☒ **Evacuation** *(general public only)* / 4 / people
Reason for Evacuation:
● Precautionary by company
○ Evacuation required or initiated by public official

f. Elapsed time until area was made safe:
/ 77 / hr. / 1 / min.

2. Environmental Impact
a. Wildlife Impact: Fish/aquatic ● Yes ○ No
Bird ● Yes ○ No
Terrestrial ● Yes ○ No
b. Soil Contamination ● Yes ○ No
If Yes, estimated number of cubic yards: 4,000
c. Long term impact assessment performed: ○ Yes ● No
d. Anticipated remediation ● Yes ○ No

e. Water Contamination: ● Yes ○ No *(If Yes, provide the following)*
Amount in water 1 barrels
Ocean/Seawater ● No ○ Yes
Surface ○ No ● Yes
Groundwater ○ No ● Yes
Drinking water ● No ○ Yes *(If Yes, check below.)*
○ Private well ○ Public water intake

If Yes, Check all that apply: ☒ Surface water ☒ Groundwater ☒ Soil ☒ Vegetation ☐ Wildlife

PART G - LEAK DETECTION INFORMATION

1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one):
   - ○ CPM/SCADA-based system with leak detection
   - ○ Static shut-in test or other pressure or leak test
   - ○ Local operating personnel, procedures or equipment
   - ○ Remote operating personnel, including controllers
   - ○ Air patrol or ground surveillance
   - ● A third party
   - ○ Other (specify) _____
3. Estimated leak duration days 3 hours 5

PART H - APPARENT CAUSE

Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.

H1 - CORROSION

1. ● External Corrosion
2. ○ Internal Corrosion

(Complete items a - e where applicable.)

a. Pipe Coating
- ○ Bare
- ● Coated

b. Visual Examination
- ● Localized Pitting
- ○ General Corrosion
- ○ Other _____

c. Cause of Corrosion
- ● Galvanic
- ○ Atmospheric
- ○ Stray Current
- ○ Microbiological
- ○ Cathodic Protection Disrupted
- ○ Stress Corrosion Cracking
- ○ Selective Seam Corrosion
- ○ Other _____

d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?
○ No ● Yes, Year Protection Started: / 1968 /

e. Was pipe previously damaged in the area of corrosion?
● No ○ Yes => Estimated time prior to accident: /___/ years /___/ months Unknown ☐

H2 - NATURAL FORCES

3. ○ Earth Movement => ○ Earthquake ○ Subsidence ○ Landslide ○ Other _____
4. ○ Lightning
5. ○ Heavy Rains/Floods => ○ Washouts ○ Flotation ○ Mudslide ○ Scouring ○ Other _____
6. ○ Temperature => ○ Thermal stress ○ Frost heave ○ Frozen components ○ Other _____
7. ○ High Winds

H3 - EXCAVATION DAMAGE

8. ○ Operator Excavation Damage (including their contractors/Not Third Party)
9. ○ Third Party *(complete a-f)*

a. Excavator group
○ General Public ○ Government ○ Excavator other than Operator/subcontractor

b. Type:
○ Road Work ○ Pipeline ○ Water ○ Electric ○ Sewer ○ Phone/Cable
○ Landowner-not farming related ○ Farming ○ Railroad
○ Other liquid or gas transmission pipeline-operator or their contractor
○ Nautical Operations ○ Other _____

c. Excavation was: ○ Open Trench ○ Sub-strata (boring, directional drilling, etc...)

d. Excavation was an ongoing activity (Month or longer) ○ Yes ○ No If Yes, Date of last contact /___/

e. Did operator get prior notification of excavation activity?
○ Yes; Date received: /___/ mo. /_____/ day /___/ yr. ○ No

Notification received from: ○ One Call System ○ Excavator ○ Contractor ○ Landowner

f. Was pipeline marked as result of location request for excavation? ○ No ○ Yes (If Yes, check applicable items i - iv)
- i. Temporary markings: ○ Flags ○ Stakes ○ Paint
- ii. Permanent markings: ○ Yes ○ No
- iii. Marks were (check one): ○ Accurate ○ Not Accurate
- iv. Were marks made within required time? ○ Yes ○ No

H4 - OTHER OUTSIDE FORCE DAMAGE

10. ○ Fire/Explosion as primary cause of failure => Fire/Explosion cause: ○ Man Made ○ Natural
11. ○ Car, truck or other vehicle not relating to excavation activity damaging pipe
12. ○ Rupture of Previously Damaged Pipe
13. ○ Vandalism

H5 - MATERIAL AND/OR WELD FAILURES

Material

14. O Body of Pipe =>O Dent O Gouge O Bend O Arc Burn O Other _____

15. O Component =>O Valve O Fitting O Vessel O Extruded Outlet O Other _____

16. O Joint =>O Gasket O O-Ring O Threads O Other _____

Weld

17. O Butt =>O Pipe O Fabrication O Other _____

18. O Fillet =>O Branch O Hot Tap O Fitting O Repair Sleeve O Other _____

19. O Pipe Seam =>O LF ERW O DSAW O Seamless O Flash Weld
O HF ERW O SAW O Spiral O Other _____

Complete a-g if you indicate **any** *cause in part H5.*

a. Type of failure:
O Construction Defect => O Poor Workmanship O Procedure not followed O Poor Construction Procedures
O Material Defect

b. Was failure due to pipe damage sustained in transportation to the construction or fabrication site? O Yes O No

c. Was part which leaked pressure tested before accident occurred? O Yes, complete d-g O No

d. Date of test: /_____/ yr. /_____/ mo. /_____/ day

e. Test medium: O Water O Inert Gas O Other _____

f. Time held at test pressure: /_____/ hr.

g. Estimated test pressure at point of accident: _____ *PSIG*

H6 - EQUIPMENT

20. O Malfunction of Control/Relief Equipment => O Control valve O Instrumentation O SCADA O Communications
O Block valve O Relief valve O Power failure
O Other _____

21. O Threads Stripped Broken Pipe Coupling => O Nipples O Valve Threads O Dresser Couplings
O Other _____

22. O Seal Failure =>O Gasket O O-Ring O Seal/Pump Packing
O Other _____

H7 - INCORRECT OPERATION

23. O Incorrect Operation

a. Type O Inadequate Procedures O Inadequate Safety Practices O Failure to Follow Procedures
O Other _____

b. Number of employees involved who failed a post-accident test: drug test: /_____/ alcohol test /_____/

H8 - OTHER

24. O Miscellaneous, *describe:* _____

25. O Unknown
O Investigation Complete O Still Under Investigation (*Submit a supplemental report when investigation is complete*)

PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

(Attach additional sheets as necessary)

Refer to ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

CLAY COUNTY KANSAS SHERIFF DEPARTMENT CALLED ENTERPRISE PRODUCTS OPERATING LP AT 10:00 AM ON OCTOBER 25, 2006 REPORTING A VAPOR CLOUD RELEASE. OPERATING PERSONNEL VERIFIED AT 10:25 AM THAT THE RELEASE WAS ON THE WEST LEG NH3 LINE.

AFTER DISCOVERY, THE PIPELINE WAS SHUTDOWN AND LINE SEGMENT BLOCKED IN. THE PUBLIC WAS EVACUATED FROM THE RURAL SITE UNTIL ALLOWED TO RETURN AT 1400 HOUR ON OCTOBER 26, 2006. PHMSA PERSONNEL WERE ON SITE OCTOBER 26, 2006.

REPAIR BEGAN ON OCTOBER 26, 2006 AND WAS COMPLETED 28, 2006. THE RUPTURE SEGMENT WAS SENT FOR A METALLURGICAL ANALYSIS TO STRESS ENGINEERING IN HOUSTON, TX.

THE METALLURGICAL EVALUATION CONCLUDED THAT THE CAUSE OF THE RUPTURE WAS METAL LOSS FROM EXTERNAL CORROSION. ALSO, BASED ON METALLOGRAPHIC EXAMINATION AND MECHANICAL TESTING, THE LONG SEAM WELD WAS FOUND TO BE ACCEPTABLE.

THE REPAIRED LINE SEGMENT IS CURRENTLY OPERATING AT A 20% PRESSURE REDUCTION PURSUANT TO CORRECTIVE ACTION ORDER CPF NO. 3-2006-5044H.